

**Nebraska Beef Industry Scholars**

*Beef Summit*

**November 18, 2021**

**Kearney, NE**





# Agenda

**8:30 am Introductions**

**9:00 am Regenerative Ranching**

Dale Strickler

**10:00 am Morning Break**

**10:15 am Adding Value to Nebraska Beef**

Greg Ibach

Trey Wasserburger

**11:30 am Maximizing Traceability Programs**

Jill Ginn, 44 Farms

**12:30 pm Lunch**

**1:30 pm Labor Programs**

Jose Valles

**2:30 pm Afternoon Break**

**2:45 pm Beef in the International Market Place**

Jessica Spreitzer, USMEF

**4:00 pm Comments from the Nebraska Cattlemen President**

Bill Rhea

**4:30 pm Final Announcements**

# Sponsors

## **Filet**

Tyson

## **T-bone**

Farm Credit Services

## **Ribeye**

Agra Holdings LP/ Midwest PMS

Greater Omaha

Wilson Trailer Co. Grand Island

Purina

Green Cover Seed

## **Strip**

Cappel Sales Inc.

Darr Feedlot Inc.

Frontier Cooperative

TD Angus

Koester Red Angus

Hauxwell Land & Cattle

Shovel Dot Ranch

Cross Diamond Cattle Company

Cuming County Feeders Association Inc.

Cattlefax

Big Iron

Hi-Gain Feedlot

Nebraska Corn Board

Roberts Cattle Co.

Big Iron Auctions

Merck Animal Health

## **Sirloin**

Howsden Ag Consulting

Lallemand Animal Nutrition

Red Angus Association of America

Schuler Red Angus

Nobel Land & Cattle

Dicke Consulting, LLC

Citizens State Bank

Wagonhammer Ranch

Rainforth Animal Health

Powerline Genetics

Ward Laboratories, Inc.

Leland Red Angus Ranch

AgWest Commodities

Cooperative Producers, Inc. (CPI)

American Gelbvieh Association

Jagels Land & Cattle, LLC

Pinnacle Bank

Upstream Ranch

QC Supply

NA Timmerman Inc.

# 2021 Senior Class



*Lauren Ahlers*

Lauren Ahlers is a Senior at the University of Nebraska-Lincoln studying Animal Science with options in Food Animal Production Management and Pre-Veterinary as well as a minor in the Nebraska Beef Industry Scholars. Lauren is from Rosalie, Nebraska where she grew up on a row crop operation and was active in her local 4-H club. During her collegiate career, she has served as the President of Circle K International-UNL and as the Vice President of Pork for the UNL Block & Bridle Club. After graduation, she plans on attending veterinary school specializing in production animals.



*Alex Heier*

Alex Heier is originally from Kenesaw, Nebraska where he grew up on a small cow/calf operation and was involved with 4-H. Here at UNL, Alex is a senior majoring in Animal Science under the Food Animal Production Option and Grazing Livestock Systems. Over the course of his life, he has grown a passion for the beef industry. Upon graduating from UNL, he would like to start a career where he can help farmers and ranchers be more sustainable, efficient, and profitable. He would also like to continue to grow my family's cattle herd.



*Shaye Koester*

Shaye Koester raises registered and commercial Red Angus cattle on her family's operation in Steele, ND. She majors in Animal Science with minors in Engler Entrepreneurship and Nebraska Beef Industry Scholars. Shaye is passionate about education, innovation and community in the ranching industry. Her future plans are to continue her podcast and newsletter business, Casual Cattle Conversations, and return home to her family's operation. She is excited to continue her involvement in the beef industry and return to a rural community.



*Miranda Mueller*

Miranda Mueller is from Yutan, NE and is a senior studying Animal Science and Grazing Livestock Systems at the University of Nebraska-Lincoln. During college she has been involved in the Engler Agribusiness Entrepreneurship Program, the Nebraska Beef Industry Scholars Program, the Grazing Livestock Systems Club, Collegiate Farm Bureau, UNL FFA Alumni Club, Block and Bridle, and the Range Management Club. Upon graduation, Miranda plans to attend graduate school and have a career pursuing her passions serving the beef industry and feeding the world sustainable beef.



### *Neleigh Gehl*

Neleigh Gehl is a Senior at the University of Nebraska-Lincoln studying Animal Science with a Minor in Nebraska Beef Industry Scholars. Neleigh is from the small town of Ericson, Nebraska where she grew up on a cow/calf, backgrounding and row crop operation. Neleigh is a member of the UNL 2021 Livestock Judging Team. After graduation in December, she will start as the Assistant Cattle Manager with Herd Co Feedlot. Neleigh's passion for the beef industry started at a very young age working on her family's operation and showing cattle in 4-H and FFA.



### *Kathlyn Hauxwell*

Kathlyn Hauxwell is a Animal Science and Pre-Veterinary major with minors in Nebraska Beef Industry Scholars and UNL Honors Program. This fifth generation agriculturalist is from McCook, NE where she started her cow/calf herd. Her family operates a diverse cattle, trucking, and commodity crop operation. She competed on the UNL Horse and Livestock Judging Teams, is the President of the Sigma Alpha-A Alpha Delta Sorority, Treasurer of Block & Bridle, and a member of the Alpha Zeta Honor Society. She plans to attend graduate school with a focus on ruminant nutrition and reproduction or veterinary school.



### *Brady Papineau*

Brady Papineau is a senior at the University of Nebraska Lincoln. Working towards a Bachelors in Animal Science with a minor in Nebraska Beef Industry Scholars. He grew up on a small family run cow calf operation in Aurora, Nebraska. Also, he was involved in 4H and FFA. Brady is dedicated to driving innovation in the beef industry and pursuing a passion for cattle. After graduation, he plans to take over the cow calf operation while continuing to be involved in the beef industry and enjoy his passion.



### *Jennifer Howsden*

Jennifer Howsden is from the small town of Alma Nebraska and is a senior at the University of Nebraska- Lincoln studying Animal Science, with a minor in Nebraska Beef Industry Scholars. Jenny is the third generation of her family operation and grew up on a farm raising corn and soybeans as well as her family has about a 350 head commercial cow/calf operation. She has always known that she wanted to continue her passion for the beef industry, and she is very eager to pursue a career within this industry after she graduates.

# 2021 Senior Class



*Malina Lindstrom*

Malina Lindstrom majors in Animal Science and Agricultural and Environmental Sciences Communication with a minor in Nebraska Beef Industry Scholars. She grew up in Elm Creek, NE on a fifth-generation row crop and cow/calf operation where she started her own registered cow herd. She is involved in national breed associations and travels the country for cattle and hog shows. She served as the VP of Beef for Block & Bridle Club, took part in the Yetter Trade Fellowship, and is a member of the 2021 Livestock Judging Team. She plans to expand her cow herd and pursue a career in livestock marketing and communications.



*Jacee De Vries*

Jacee De Vries is from Inwood, IA where her family manages a coop. At UNL, she majors in Animal Science, with minors in the Beef Industry Scholars Program, Grazing Livestock Systems, and Ag Economics. While in school, Jacee is also very involved with the UNL Rodeo Program, where she competes in breakaway and team roping, as well as serving on the executive team and being women's team captain. After graduating in May, Jacee plans to attend graduate school for ruminant nutrition where she hopes to further her passions for both the beef industry and the rodeo industry.



*Samuel Steffen*

Samuel Steffen grew up in Beatrice, Nebraska. He is a Senior at UNL double majoring in Grazing Livestock Systems and Animal Science with a minor in Nebraska Beef Industry Scholars. He first got involved in agriculture on his uncle's dairy helping with harvest as a kid and eventually working there for 2 summers. Sam developed a passion for animal sciences and what it takes to manage a livestock operation through these experiences and good examples. After graduation Sam wants to manage his own cattle operation one day.



*Abbie Philmalee*

Abbie Philmalee is a senior Animal Science and Agribusiness major from Wood River, Nebraska. Throughout her college career she has been heavily involved in the University of Nebraska-Lincoln Rodeo Association and currently serves as their president and has also been a Nebraska Corn and Soybean Ambassador. After graduation, Abbie plans on pursuing a career within feedlot management while continuing to work within the family farm. Eventually, she wants to branch out and start her own operation while continuing to advocate for the beef industry.



*Ralston Ripp*

Ralston Ripp will graduate with an Animal Science and an Agribusiness degree, along with minors in Engler Entrepreneurship and NBIS. She grew up in Kearney, NE showing cattle and learning to love rural America. As a fourth generation Hereford Breeder, she currently serves as a National Junior Hereford Board Director and is working to grow her cowherd alongside her sister. She is a member of the 2021 UNL Livestock Judging Team, the Block & Bridle Little Aksarben Chairmen, and an Alpha Phi-Nu Chapter Sorority member. Ralston has a strong adoration for the agriculture and beef industry and knows it is her time to innovate, serve, and lead. As a girl who loves to bake a good pie and stand chute side processing calves, Ralston is excited to continue to grow and build her Ag legacy, while helping others do the same.



*Heidi Saner*

Heidi Saner is a senior at the University of Nebraska-Lincoln that is majoring in Animal Science. She grew up on a small cow-calf operation by Dunning Nebraska. Growing up she participated in FBLA and 4H. She has a passion for the goat and cattle industry and plans on raising both after graduating. Once graduated she plans to return home and raise cattle and goats while advocating the industry.



**LALLEMAND ANIMAL NUTRITION**

# Dr. Clint Krehbiel



Clinton R. Krehbiel was raised on a diversified farm near McPherson, Kansas. He holds B.S. (1988) and M.S. (1990) degrees from Kansas State University and a Ph.D. (1994) from the University of Nebraska-Lincoln. Clint was a postdoctoral fellow at the U.S. Meat Animal Research Center near Clay Center, NE. He then spent 3.5 years on the faculty at New Mexico State University before joining the faculty at Oklahoma State University in January 2000. Clint was a Regents Professor, the Dennis and Marta White Endowed Chair in Ruminant Nutrition and Health, and the Assistant Department Head of Animal Science at Oklahoma State University. In January 2017, Clint became the Marvel L. Baker Professor and Head of the Department of Animal Science at the University of Nebraska-Lincoln. Clint's research interests include understanding relationships involving ruminal fermentation, gut metabolism, and nutrient absorption to improve health, growth, feed efficiency and end-product quality of beef cattle. He also studies the impact of bovine respiratory disease on immune function, gene expression, nutrient metabolism, animal performance, and carcass merit. Clint has published over 500 total publications including refereed journal articles, book chapters, abstracts of papers presented at scientific meetings, research reports of the Agricultural Experiment Station, and papers published in conference proceedings, and has served as PI or co-PI on more than \$5,500,000 in grant funding to support collaborative research. Clint has taught graduate courses in Rumenology, Laboratory Techniques in Animal Nutrition, and Protein Nutrition.

Dr. Krehbiel has been a member of the American Society of Animal Science (ASAS) since 1988 and has served on the Editorial Board for Growth and Developmental Biology and Ruminant Nutrition, as Associate Editor for Animal Nutrition, as chairperson of the Alpha Phi Beef Cattle Nutrition Symposium, and on the Board of Directors. Clint is also a member of the American Dairy Science Association, American Registry of Professional Animal Scientists, and the Plains Nutrition Council (President 2007-2008). Dr. Krehbiel has received the ASAS Southern Section Outstanding Young Animal Scientist Award for Research, the Oklahoma State University Department of Animal Science Tyler Award, the James A. Whatley Award for Meritorious Research in Agricultural Science, the Gamma Sigma Delta Research Scientist Award of Merit, the Sarkey's Distinguished Professor Award, the OSU University Service Award, and the AFIAASAS Ruminant Nutrition Award. Clint and his wife Shelly have three daughters.

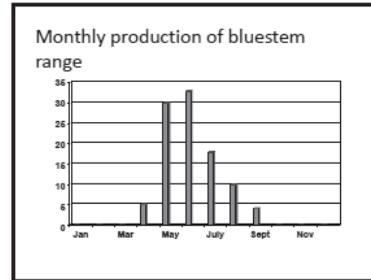
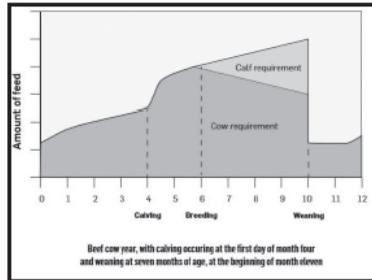
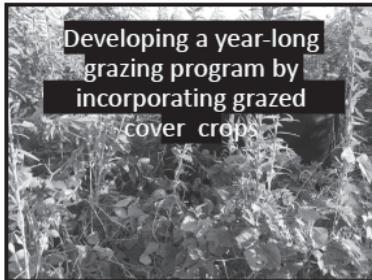
# Dale Strickler



Dale Strickler is an agronomist for Green Cover Seed, the nation's leading cover crop specific seed company and a leader in the soil health movement, based out of Bladen Nebraska. He grew up on a diversified farm near Colony Kansas, then attended Kansas State University, achieving both BS and MS degrees in Agronomy. He taught agronomy at Cloud County Community College for 15 years before entering private industry. He has been an agronomist for Land O'Lakes, Star Seed, and Valent USA prior to working with Green Cover Seed. Dale is also the author of the books *The Drought Resilient Farm*, *Managing Pasture*, and *The Complete Guide to Restoring Your Soil*. After living in North Central KS for thirty years, Dale has relocated back near his hometown and now lives in Lola KS where Green Cover Seed maintains a warehouse.

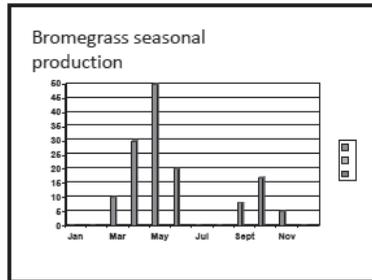


# Notes



Steer ADG on bluestem pasture by month

* Month	ADG
* May	2.50
* June	2.01
* July	1.64
* Aug	1.28
* Sept	1.19

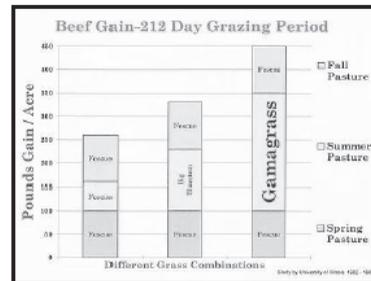


### How C<sub>4</sub> and C<sub>3</sub> Plants Compare in Water Use Efficiency

This table illustrates the superior water use efficiency of C<sub>4</sub> species compared to C<sub>3</sub> species, in grams of plant produced per kg of water used.

	C <sub>4</sub> SPECIES	C <sub>3</sub> SPECIES
Broadleaf plants	3.44	1.50
Grasses	3.14	1.49

Table 6.1



# Notes

Effect of clipping weekly at 1 inch height on wheatgrass (coolseason)

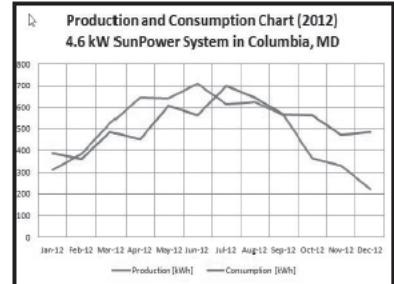
Period clipped	Survival
Apr 15-May 7 (vegetative)	100%
May 1-May 22 (early repro)	25%
May 15-June 7 (mid repro)	50%
June 1-June 22 (late repro)	55%
Every 2 weeks,	

(*Vulpes lagopus* (in vegetative) this 6000?)

Mowing date on carbohydrate reserves of big bluestem (WS)

Mowing date	% carbohydrate in roots
Unmowed	7
June 1	8.25
July 1	8.5
Aug 1	6.7
Sept 1	4.4

\*Defoliation during dormant season causes no reduction in CHO reserves



Unavoidable reality

- Less sunlight and lower temperatures in fall, winter than in spring and summer
- If you are capturing all your sunlight and converting it into plant material, you will always have more production per acre in spring and summer than in fall and winter

Dealing with the reality

- Option #1: Reduce livestock numbers in fall (wean and sell)

Dealing with the reality

- Option #1: Reduce livestock numbers in fall (wean and sell)
- Option #2 : Supplemental feed in fall and winter

In 1973

- Beef sold for \$.50
- Diesel cost \$.15
- N fertilizer cost \$.07
- A new big round baler cost \$3000

In 1973

- Beef sold for \$.50
- Diesel cost \$.15
- N fertilizer cost \$.07
- A new big round baler cost \$3000
- And the guy at the right was cool.

Keith Berns  
High School Senior Picture

Dealing with the reality

- Option #1: Reduce livestock numbers in fall (wean and sell)
- Option #2 : Supplemental feed
- Option #3: Stockpile summer growth to graze in fall and winter

# Notes

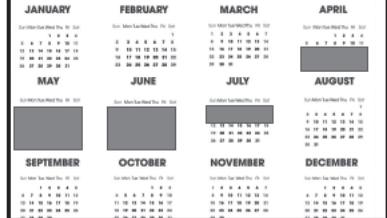
Protein of big bluestem (rumen microbes need minimum of 7%)

- Early 14.3%
- vegetative 9.7%
- Late vegetative 4.5%
- Flowering 3.0%
- Dormant

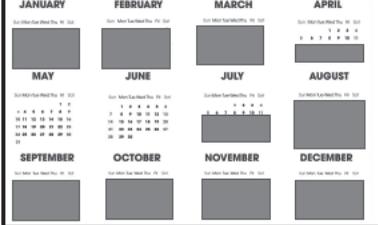
Dealing with the reality

- Option #1: Reduce livestock numbers in fall (wean and sell)
- Option #2 : Supplemental feed
- Option #3: Stockpile summer growth to graze in fall and winter
- Option #4: Expand your acres to neighboring ground (crop ground with stalks or cover crops, cool-season hay ground) to provide quality forage when perennial pastures are not productive, or of low quality, or need rested

When do you have grazing in abundance?



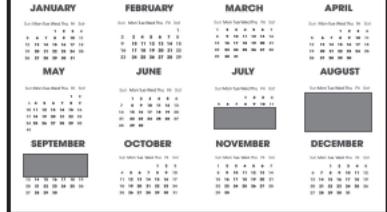
When do you NOT have grazing in abundance?



When do you NOT have grazing in abundance?

- Late summer (late July through early September)
- Early fall (early September through early November)
- Late fall (early November through December)
- Winter (January through early March)
- Early spring (early March through mid April)

What can you graze in late summer?



May-July planted options: grasses (ready for grazing by July)

- Sorghum-sudangrass
  - BMR corn
  - Pearl millet
  - Foxtail millet
  - Japanese millet
  - Browntop millet
  - Teff
  - Crabgrass
- (arranged from highest to lowest yield)

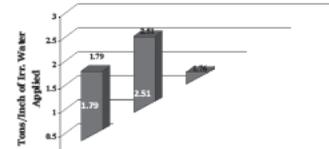
Sorghum-Sudan Grazing Trial

Linn, Kansas 2010

Tall BMR Sorghum-Sudan | Brachytic dwarf BMR (2.32 ADG)



2001 Irrigated Sorghum Silage Trial Water Use Efficiency



Courtesy of TAMU Research Center, Dallas, TX <http://dallas.tamu.edu/Research/Center/Center%20Publications>

# Notes

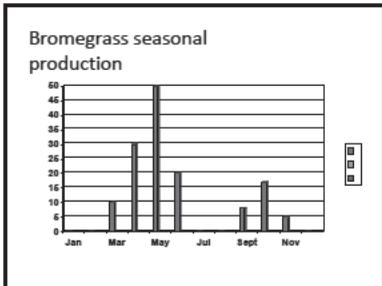


**Suggested summer grazing mix**

- 10 lbs dwarf BMR sorghum-sudan
- 5 lbs Tifleaf 3 pearl millet
- 5 lbs iron and clay cowpeas
- 3 lbs sunn hemp
- 3 lbs mung beans
- 1 lb okra
- 1 lb sunflower
- 3 lbs buckwheat

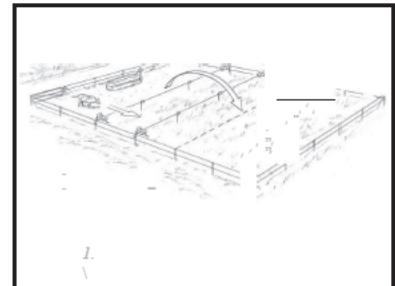
### What can you graze in early

JANUARY	FEBRUARY	MARCH	APRIL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
MAY	JUNE	JULY	AUGUST
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31



### What can you graze in late

JANUARY	FEBRUARY	MARCH	APRIL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
MAY	JUNE	JULY	AUGUST
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31		



Suggested August or early September planted mix for fall, winter, and spring grazing

- 30 lbs oats
- 60 lb rye (or triticale)
- 10 lb annual ryegrass
- 5 lb bmr corn
- 1 lb collards
- 1 lb turnips
- 2 lb radish
- Also options: spring peas, crimson clover, balansa clover

### What can you graze in

JANUARY	FEBRUARY	MARCH	APRIL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
MAY	JUNE	JULY	AUGUST
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31		



# Notes

**Relative quality**

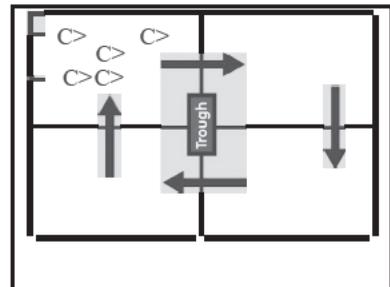
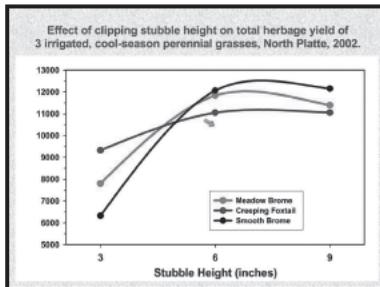
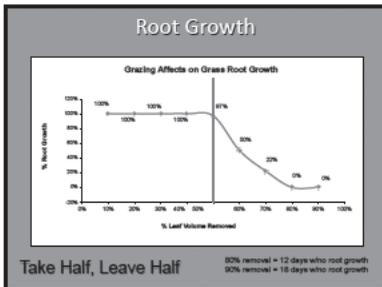
Forage	protein	TDN
Late June cut prairie hay	10%	60%
August cut prairie hay	5%	45%
Stockpiled fescue in winter	14-16%	58-65%

**Grazing native grass when green vs dormant**

Green grass is roughly 12% protein and 65% digestible

Dormant grass is roughly 3% protein and 45% digestibility

Which is worth more?



**Cost hay vs dry grass**

grass

- 1300 lb cow eating 3% of body weight = 39 lbs /day
- Prairie hay at \$80/ton (\$.04/lb)
- Daily feed cost of 39 x \$.04 = \$1.56
- Cost of feeding the hay not included
- Versus.....
- Unlimited dry grass =FREE! (plus cost of protein supplement=??)

**Cows must be nonlactating**

Nutritional needs of cow by

	lbs TDN/day	lbs CP/day
Mid-gestation	11	1.5
Early Lactation	14	2.3

**Need additional protein**

A protein deficiency limits the microbial digestion

- Intake of unsupplemented dry cows on native range in midwinter= 1.4% of body weight, for 1300 lb cow that is 18.2 lbs
- Native range in winter is about 4% protein and 40% TDN
- 18.2 x 4% = .72 lbs protein (need 1.5 lbs minimum!)
- 18.2 x 40% = 7.2 lbs TDN (need 11 lbs minimum)
- About 1 lb extra protein per day gives both enough protein AND stimulates more digestion of the forage for more energy

# Notes

## Supplement to get 1 lb protein

- \* 2 lbs 48% soybean meal
- \* 4 lbs 25% protein DDG
- \* 6 lbs 16% alfalfa hay

## Additional protein stimulates intake

	No supplement	% CP of supplement	
		12	27 39
Forage intake as % BW	.9	.8	1.41.2

## Want high protein and low starch

	Daily supplement			
	.5 lb CP		1.0 lb CP	
	3 Mcal	6 Mcal	3 Mcal	6 Mcal
% CP in supp	22	11	44	22
Lbs fed/day	2.2	4.4	2.2	4.4
Forage intake %BW	1.2	.8	1.1	1.2
Fiber digestion %	31.9	24.3	36.1	34.9

## Amaferm (Aspergillus oryzae extract)

- \* Research by Varel et al 1993 in Applied and Environmental Biology, 10(10):2171-2176 found Amaferm increased digestion of the neutral detergent fiber in bromegrass by 28% and switchgrass by 24%
- \* Best effect from Amaferm is on low quality forage

## Ionophore

- \* Potter et al in Journal of Animal Science found that cattle fed low quality forages had 14.4% higher ADG and 15.3% better feed efficiency when also fed monensin (Rumensin)

## Frequency of feeding

	Calf crop weaned %	weaning weight
* Fed daily	78	403
* Fed 3x a week	84	419

\* Same total amount of supplement fed to each

## Using dormant native grass effectively

- \* Cows must be nonlactating!!!!
- \* Must receive protein supplement (1 lb/day avg)
- \* Aspergillus oryza extract (Amaferm)
- \* Ionophore helps
- \* Low starch protein source
- \* Every 3<sup>rd</sup> day is best
- \* Intake limited with salt?
- \* Can you grow the protein source right in the pasture instead of buying the protein? Interseed legumes and Strip graze

## Beef per acre from native range with stockers

	System Lbs beef/acre
* Grazed May1-Oct 1 @ 3.3 acres/hd	47
* Burn, graze May 1-Oct 1 @ 3.3	59
* Burn, graze May 1-July 15 @ 1.76	82

## Sweetclover interseeding effect on range productivity, avg years 2 thru 6

Treatment	Lbs total forage	Lbs grass
Untreated	751	750
2.5 lbs/acre sweetclover seeded -in-1 <sup>st</sup> -year	2018*	1123

- \* 269% increase in production!
- Study conducted in western South Dakota

# Notes

## Cumulative

### practices

• Unburned	47 lbs/acre
• Burned	59
• Burned + intensive early grazing	82
• + sweetclover (+269% projected)	221
• + dormant grazing (+25% projected)	277
• + management intensive grazing	????

• These combined practices can hypothetically increase production of rangeland by 569% OR MORE: the equivalent of changing 150 bushel corn crop into 884 bushels! Or maybe the better analogy is that our current pasture management is equivalent to 25 bushels per acre corn management.

## What can you graze in early

JANUARY	FEBRUARY	MARCH	APRIL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
MAY	JUNE	JULY	AUGUST
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

## The bottom

### line..

- You can reduce or even eliminate the need for hay feeding, you can graze year around (which eliminates about half the annual cost per cow)
- Animal performance can be greatly enhanced (green pasture much better quality than hay)
- Lower cost plus higher income= more profit!

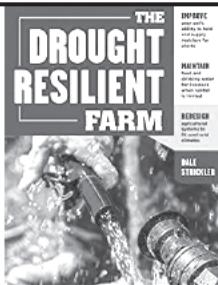
## Further

### resources

- Fescue Pasture Repair Manual (free, email me)
- GCS Soil Health Resource Guide (free)
- All of our webinars are free on youtube; many are pasture oriented (Escaping the Bermuda triangle, Rescue from Fescue, Establishing Pasture, Stockpiling, etc)
- The Drought Resilient Farm (\$25)
- Managing Pasture (\$30)

## CONTACT ME TO ORDER!

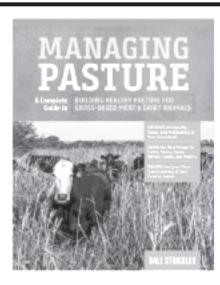
\$25... about the cost of 2 bushels of wheat, or 6 bushels of corn.  
And next Christmas is just a few months away!



## MAKE YOURS A DOUBLE ORDER!!

\$30... about half the cost of one big round bale of hay.

If buying this book enables you to raise one more calf on your place in your lifetime, you can afford to buy 20 more books to give to friends!



Thank you







**MIDWEST PMS LLC**  
 mwpmc.com (800) 635-3031

**Proud to Support the  
 Nebraska Beef Summit**

**WE HAVE  
 THE KNOW  
 TO HELP  
 YOU  
 GROW.**

Grant F. >



More than a source of financing, we are a source of expertise and guidance, with money-saving tools and time-saving services. Ask about our young and beginning scholarships and programs.

Learn more by calling 800.884.FARM.

**PROUD TO SUPPORT  
 THE NEBRASKA BEEF  
 INDUSTRY SCHOLARS!**

[YoungAndBeginning.com](http://YoungAndBeginning.com)

**Agriculture Works Here.®**  
 > [FCSAmerica.com](http://FCSAmerica.com)

# Greg Ibach



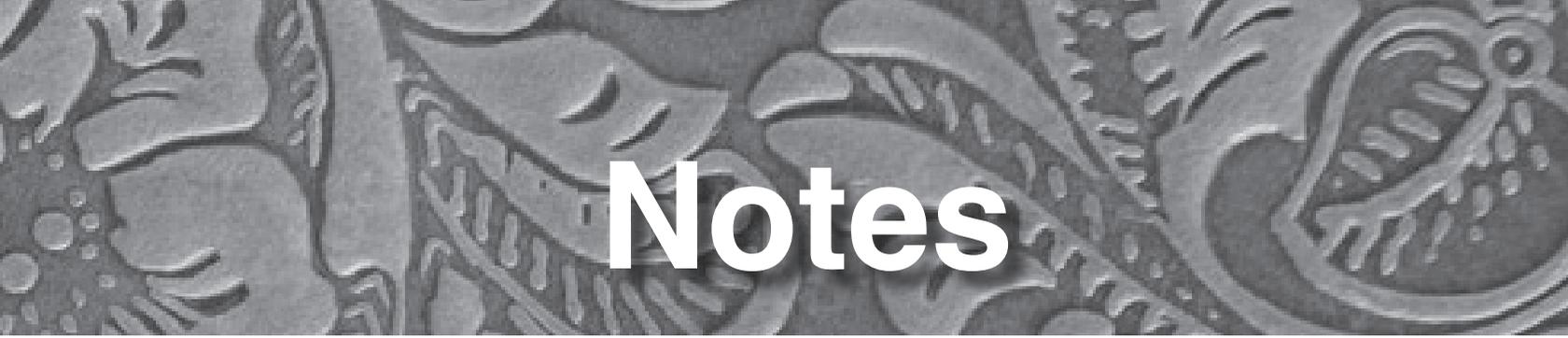
Greg Ibach is the Under Secretary in Residence at the University of Nebraska-Lincoln's Institute of Agriculture and Natural Resources. In his role with IANR, Mr. Ibach works to connect UNL Research, Teaching and Extension expertise to current policy initiatives and opportunities at the state and federal government level. He will also engage UNL learners interested in public service, the importance of public and private partnerships, and science-informed policy.

Mr. Ibach spent the past three years as USDA's Under Secretary for Marketing and Regulatory Programs. In his role as the Under Secretary, Mr. Ibach carried out the MRP mission area's broad task of facilitating domestic and international marketing of U.S. agricultural products and ensuring the health and care of animals and plants.

Prior to his USDA appointment, Mr. Ibach served as Nebraska's Director of Agriculture for over 12 years, making him the longest-serving director in the organization's history. He has been inducted into the Nebraska Hall of Agricultural Achievement.

Mr. Ibach was a 2018 Block and Bridle Honoree and the recipient of the Department of Agricultural Economics 2020 Outstanding Alumni Award.

Mr. Ibach holds a Bachelor of Science in Agriculture from the University of Nebraska with majors in Animal Science and Agricultural Economics. He and his wife, Teresa, have three grown children and two granddaughters. They continue to maintain a cow/calf and grain operation in Sumner, NE.



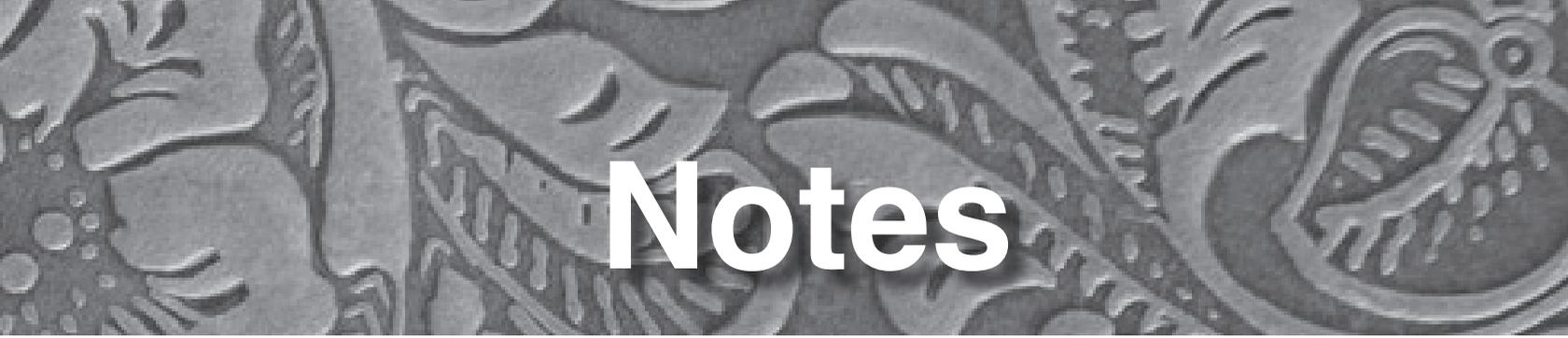
# Notes

# Trey Wasserburger



Trey Wasserburger, raised in Gillette, WY and now from North Platte, Nebraska is the owner and operator of TD Angus at Rishel Ranch. An 800 head registered Angus cow herd that markets 350+ Angus bulls annually and recently sold the record high selling T/D Doc Ryan for \$525,000 to Herbster Angus Farms in March. His family also operates a 30,000 capacity feedlot in Hershey, Nebraska where they also host the TD Angus Feed Test where commercial ranches can compete for \$25,000 in cash for winning five industry relevant categories. Trey has also received the prestigious “40 Under 40” award for Agriculture Industry Leaders and also received the Young Cattleman of the Year Award from Cattle U in 2021. Trey is one of the founding members of the 400,000 head capacity beef packing plant in North Platte, Nebraska, Sustainable Beef LLC. This plant is set to break ground in early 2022.





# Notes

# Jill Ginn



Jill Ginn is the Managing Director of Genetic Sales and Producer Relations for 44 Farms, LLC in Cameron, Texas. Having grown up in Hereford, Texas, the “Beef Capital of the World,” it is easy to say that Jill was born to be in the cattle business. After graduating from Texas A&M University with a degree in Agricultural Science in 1993, Jill officially began her career in the Beef Industry buying fat cattle for Cargill throughout the Panhandle of Northern Texas. In 1999, Jill joined Global Animal Management, where she spent three years as National Accounts Manager responsible for the top 25 feedyards in the United States. In 2003, Jill joined Novartis, where she spent 10 years as a territory manager covering Central / East Texas to Louisiana. From 2013 to 2019, Jill was a Genomics Technical Sales Representative for Neogen Corporation, followed by two years with Multiman USA as a territory representative specializing in injectable trace minerals, before joining 44 Farms in August of 2021.

Throughout her career, Jill has worked in every segment of the Beef Industry from Cow/Calf, Stocker, Feedyards to the Packing House – doing her best to give back to the industry that has given her so much. Along the way, Jill has served as President of Texas CattleWomen in 2003 as well as the President of American National CattleWomen in 2011. Jill is currently the Chairman of the Women in Ranching Education and Development (WIRED) program for ANCW. In addition to her duties with 44 Farms and ANCW, Jill and her husband Scott are the proud parents of 10-year-old twins, Luke & Grace. The family resides in Godley, Texas.

# Notes

Slide 1



---

---

---

---

---

---

---

---

---

---

Slide 2



---

---

---

---

---

---

---

---

---

---

Slide 3



---

---

---

---

---

---

---

---

---

---

# Notes

Slide 4



---

---

---

---

---

---

---

---

---

---

Slide 5



---

---

---

---

---

---

---

---

---

---

Slide 6



---

---

---

---

---

---

---

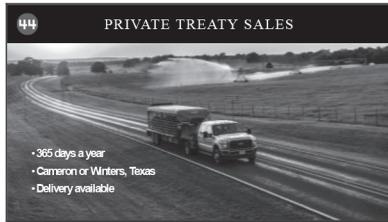
---

---

---

# Notes

Slide 7



---

---

---

---

---

---

---

---

---

---

Slide 8



---

---

---

---

---

---

---

---

---

---

Slide 9



---

---

---

---

---

---

---

---

---

---

# Notes

Slide 10



---

---

---

---

---

---

---

---

---

---

Slide 11



---

---

---

---

---

---

---

---

---

---

Slide 12



---

---

---

---

---

---

---

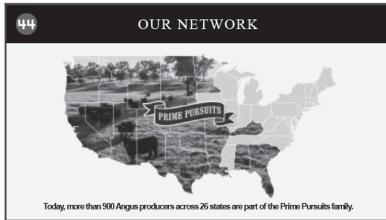
---

---

---

# Notes

Slide 13



---

---

---

---

---

---

---

---

---

---

Slide 14



---

---

---

---

---

---

---

---

---

---

Slide 15



---

---

---

---

---

---

---

---

---

---

# Notes

Slide 16



---

---

---

---

---

---

---

---

---

---

Slide 17



---

---

---

---

---

---

---

---

---

---

Slide 18



---

---

---

---

---

---

---

---

---

---



the beef & pork  
experts™



## The made in America experts

With six beef plants, six pork plants, three value added plants and five case ready facilities producing quality fresh meats, we are proud to call America home.

TheBeefAndPorkExperts.com

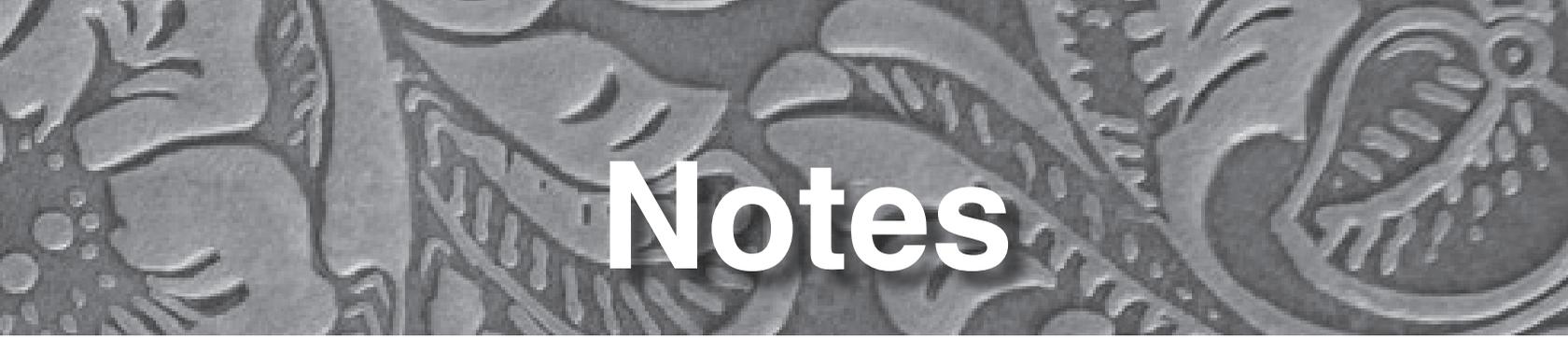
*Chairman's Reserve® Meats | Open Prairie® Natural Meats | Star Ranch Angus® Beef  
ibp Trusted Excellence® Brand | Reuben® Corned Beef*

\*Minimally processed. No artificial ingredients.  
©/™ 2021 Tyson Foods, Inc.

# Jose Valles



Jose Valles graduated with his Master of Biomedical Sciences from Kansas State University in 2013. He was born in the state of Durango in Mexico. He spent his childhood in both Durango and in southwest Kansas. In Mexico, his family has been dedicated to a cow-calf operation and the farming of dry beans, corn, and oats. After high school, Jose decided to further his education at the university level and has since lived in the U.S. He attended Seward County Community College in Liberal, Kansas, and during that time worked at the Liberal Animal Hospital. Jose transferred to Kansas State University through the Developing Scholars Program and Bridges to the Future Program. While attending Kansas State University, Jose worked at the Beef Cattle Institute from 2007 to 2013. After graduating from Kansas State University in 2013, Jose joined Production Animal Consultation, then later that year married his girlfriend Areli, and moved to Kearney, Nebraska. Jose enjoys spending time with his beautiful wife Areli and his sons Matteo and Antonio who are 4 and 5 years old. He also enjoys riding a good horse, horse races, and grilling steaks.



# Notes

# Jessica Spreitzer



Jessica Spreitzer is the U.S. Meat Export Federation's trade analyst. Jessica joined USMEF in 2014 after receiving her M.A. in International Development with a focus on Food Security from the University of Denver. She holds a B.S.M. in Business Management and International Development from Tulane University. In her role at USMEF, Jessica provides market analysis on the U.S. red meat industry and trade to international and domestic stakeholders and contributes to USMEF's red meat export forecasts and reports.



# Notes



**International Beef Markets and Trade**

Jessica Spreitzer  
Trade Analyst, U.S. Meat Export Federation  
Nov 18, 2021



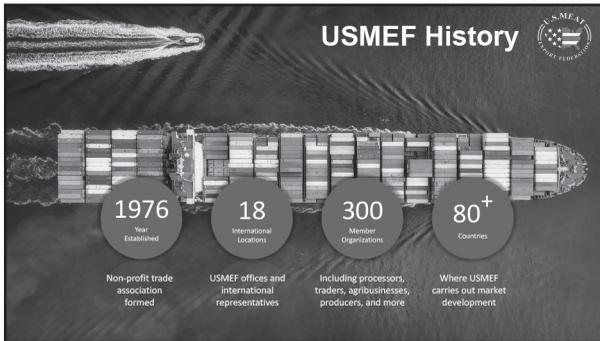
**USMEF Mission**




*Putting U.S. Meat on the World's Table*

**“To increase the value and profitability of the U.S. beef, pork and lamb industries by enhancing demand for their products in export markets through a dynamic partnership of all stakeholders.”**

**USMEF History**

- 1976** Year Established  
Non-profit trade association formed
- 18** International Locations  
USMEF offices and international representatives
- 300** Member Organizations  
Including processors, traders, agribusinesses, producers, and more
- 80+** Countries  
Where USMEF carries out market development



**USMEF's Global Offices and Representatives**

Locations marked on the map include: Denver, London, Eastern Europe, Beijing, Seoul, Tokyo, Shanghai, Taipei, Singapore, Ho Chi Minh City, Durbun, Lima, Bogota, Caribbean, Mexico City, Guatemala, Watterry, and Yantai/Korea.

**U.S. Beef Exports**

**2021 beef export trends:**

- Tight global supplies and strong demand for beef, even with the change in sales/buying channels
- U.S. is the top \$ exporter of beef and only second to Brazil in volume, U.S. leads export growth this year
- Major exporters continued to shift to China
- Record U.S. exports driven by China, but also Korea, Japan, ASEAN etc. and rebound to Mexico
- U.S. record export value per head, record lbs. per head exported

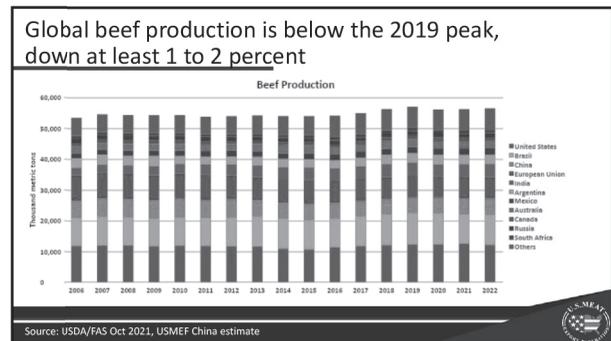
**Looking ahead:**

- Easing of foodservice/tourism restrictions in key markets □ pent up demand/revenge spending
- Growing role of e-commerce in food sales in key markets
- Continued logistics/shipping challenges
- Continued tight labor supply to impact variety meats, labor-intensive items for export
- Strong global demand for U.S. beef and room for further per capita consumption growth
- Record U.S. beef exports driven by continued growth to Asia



**Global beef production is below the 2019 peak, down at least 1 to 2 percent**

**Beef Production**

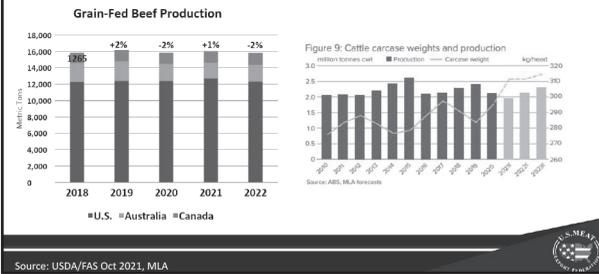


Source: USDA/FAS Oct 2021, USMEF China estimate

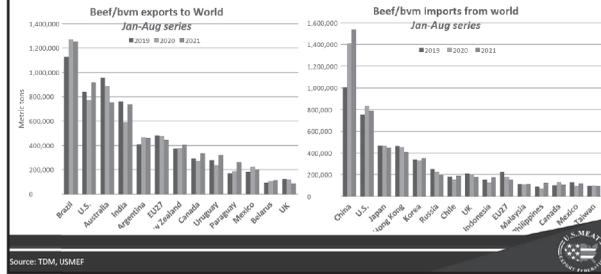


# Notes

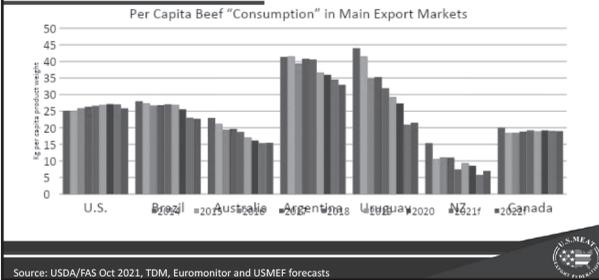
## Grain-fed beef production forecast down 2% in 2022



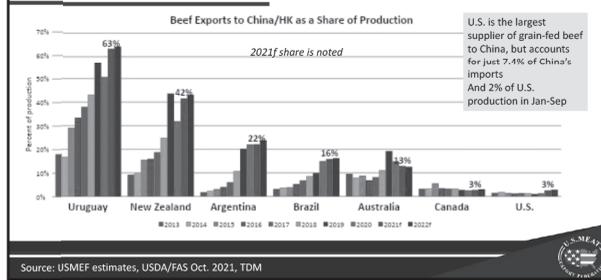
## U.S. led the growth in global beef exports in the first 8 months of this year; and top exporters shipped an estimated 5% more than in the first 8 months of 2020, reaching 6.3 mmt. Growth in imports into China, Korea, Chile, Indonesia, Philippines, Mexico



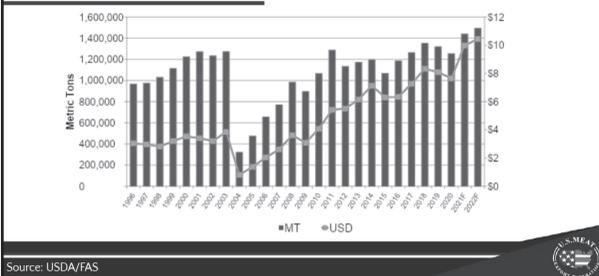
## Smaller supplies of beef per person in the major export markets is another sign of limited global supplies. U.S. is unique in meeting both domestic demand and export demand



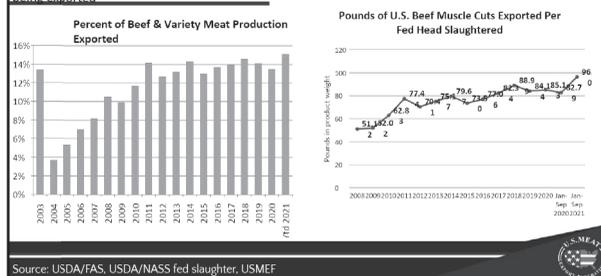
## A large share of beef production is already China-bound



## 2021 U.S. beef export volume forecast at 1.441 mil mt, up 15% followed by 3.6% growth in 2022. Value expected to near \$10 billion in 2021 and surpass it in 2022, up >30% from 2020 and up 20% from the 2018 record

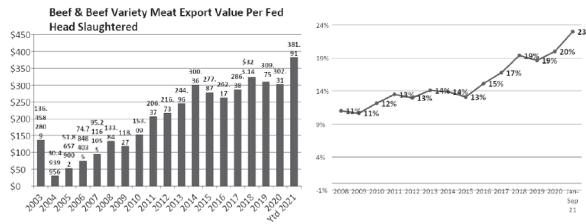


## Jan - Sep 2021 exports accounted for 12.8% of muscle cut production and 15.1% when including variety meats; 2021 lbs. of beef per fed head slaughtered exported reached a new high on a wider range of cuts being exported



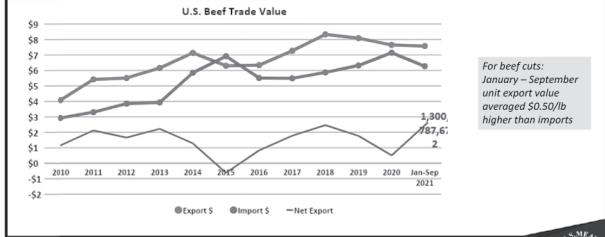
# Notes

Exports help to maximize carcass values and underpin cattle prices  
Exports of beef and edible variety meats have averaged above \$300 per fed head for the past 3 years and in Jan – Sep this year \$389



Source: USDA/USMEF

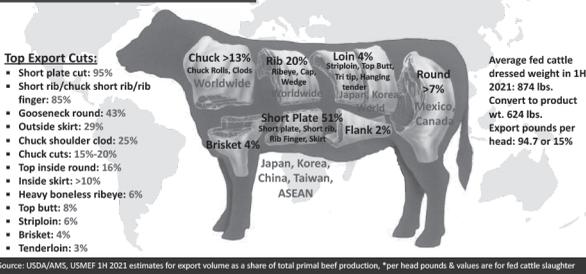
U.S. remains a net exporter of beef even as U.S. consumer demand for beef has been strong



For beef cuts: January – September unit export value averaged \$0.50/lb higher than imports

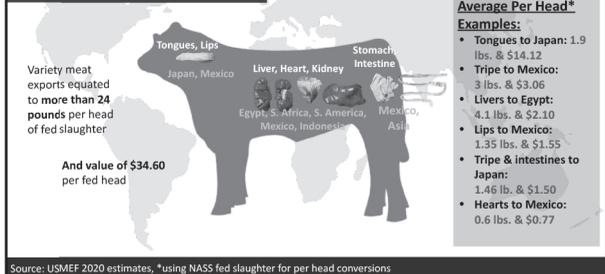
Source: USDA CATS

Some cuts are primarily for export  
Share of Beef Primals Exported



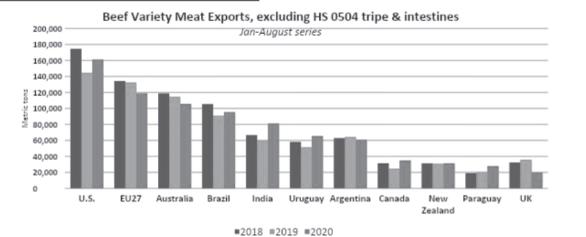
Source: USANAAMS, USMEF 3H 2022 estimates for export volume as a share of total primal beef production, \*per head pounds & values are for fed cattle slaughter

The majority of edible beef variety meats are exported



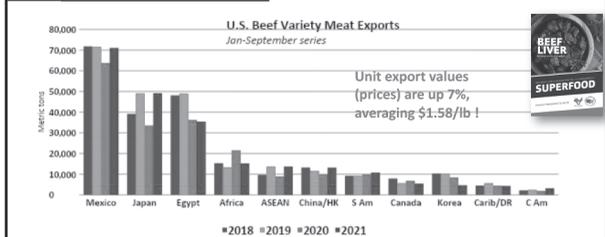
Source: USMEF 2020 estimates, \*using NASS fed slaughter for per head conversions

The U.S. is the biggest exporter of edible beef variety meats



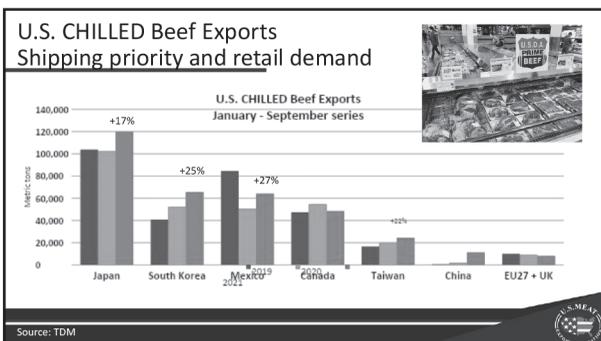
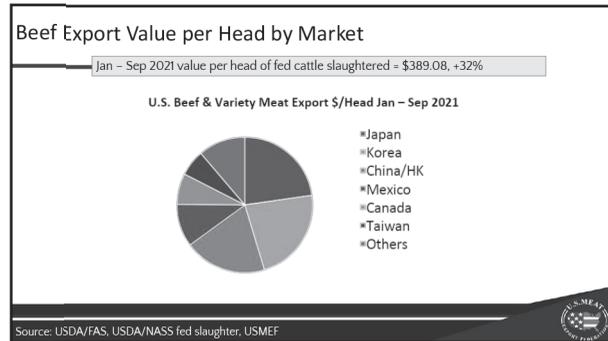
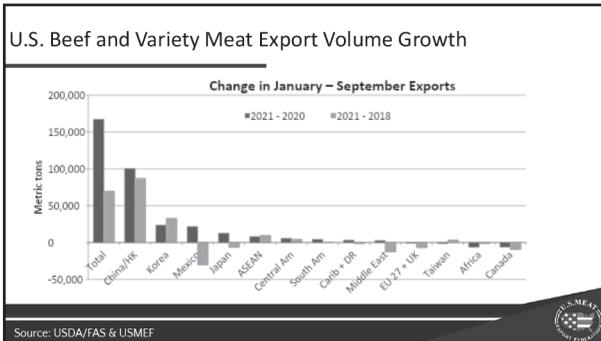
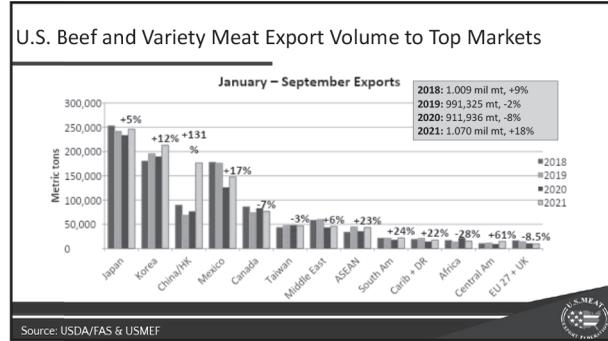
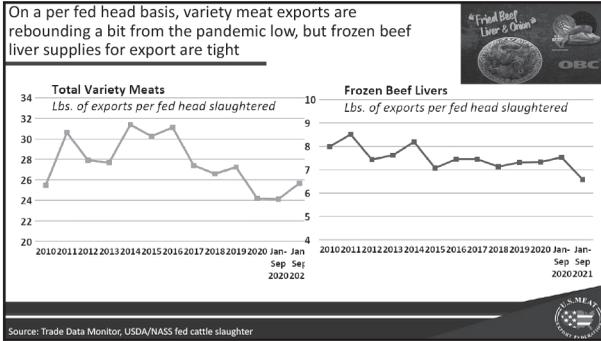
Source: TDM

Top U.S. markets for beef variety meats  
Japan is the largest on a \$ basis

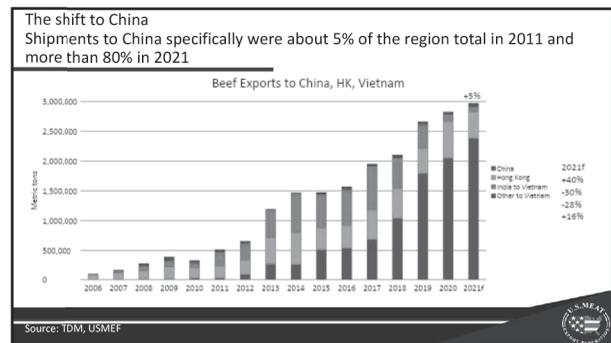
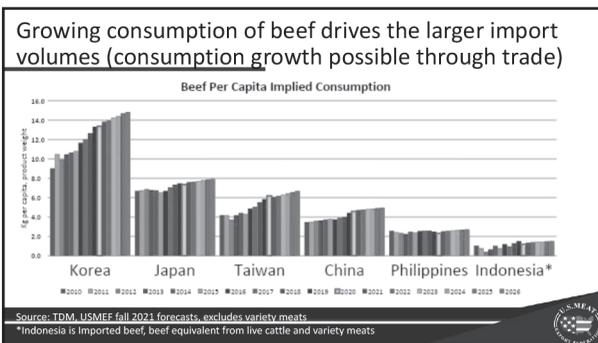
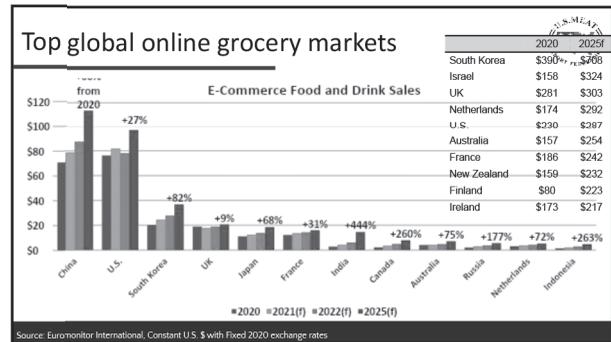
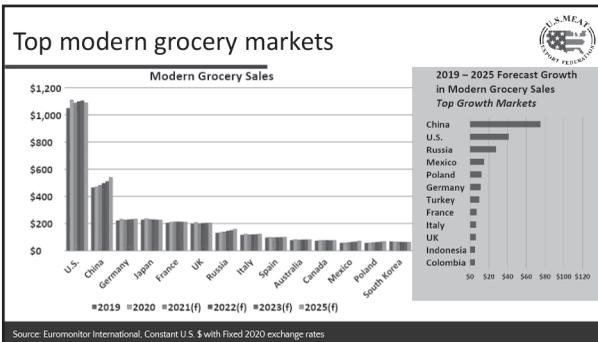
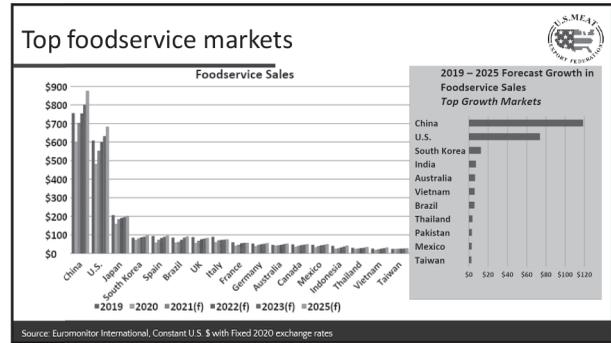
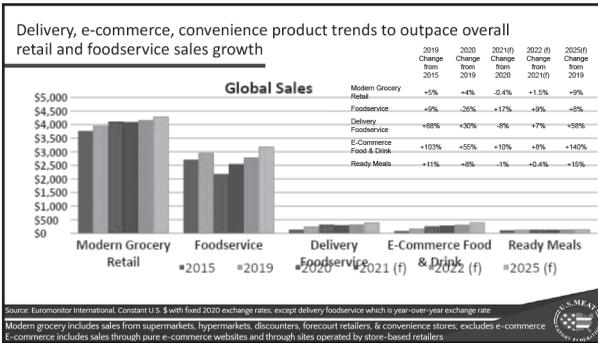


Source: USDA, USMEF

# Notes

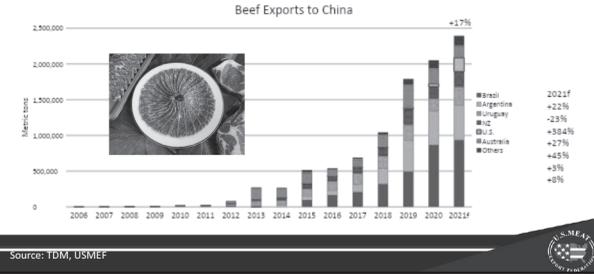


# Notes

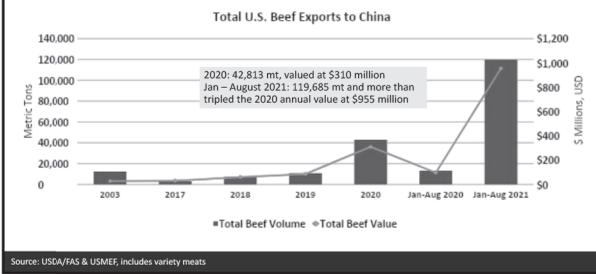


# Notes

The shift to China includes a big surge from the U.S., and the U.S. is now the top supplier of grain-fed beef to China



U.S. beef and variety meat exports to China reached a new record in 2020 (following the market reopening in 2017 and the Phase 1 implementation in March 2020)



E-commerce, livestreaming, retail promos, chef's tables, merchandising U.S. beef...

Beef Short Rib Sihwan Soup

Source: TDM, USMEF estimates

Japan

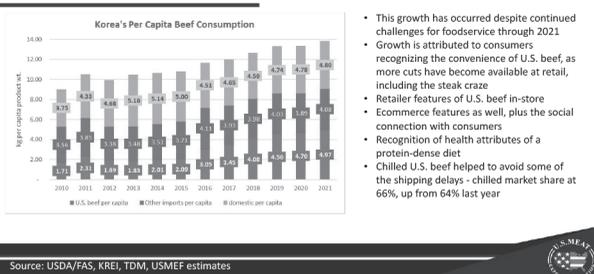
- Japan importing record (post-BSE) volumes of U.S. chilled beef this year, with chilled market share at 54%, up from 48% in 2020
- Optimism for foodservice recovery with the recent easing in restrictions
  - Peter Luger grand opening
  - Beef bowl chains announce they will be open 24/7
- Food as health trend

PETER LUGER STEAK HOUSE TOKYO  
2021 October 1st - Grand Opening

元気でいるには勝ちならわ

Source: TDM, USMEF estimates

U.S. is driving the growth in Korea's beef consumption, and total consumption has increased from 10 kg in 2012 to an estimated 13.8 kg in 2021



Korea e-commerce

미국산 소고기 주식 선물 세트

미국산 소고기

Source: TDM, USMEF estimates

# Notes

## Taiwan

- 17<sup>th</sup> largest global foodservice sales market with only 0.3% of the global population
- U.S. dominates the chilled beef market with over 80% market share
- Innovations in packaging  e-commerce, pre-made meals
- Steak craze, camping craze, BBQ craze
- Alternative cut strategy
  - Short rib, short plate, chuck roll  demand for other products
  - Chuck flap, teres major, loin, clod heart



## Staycation with U.S. Beef

13 Staycation cuisine with U.S. Beef

Like: 419  
Reach: 246  
Interaction: 374  
Impression: 359K  
<https://www.usmeat.com/>



chef\_jamestw

Jame is a Taiwanese chef, restaurateur, television celebrity and Youtuber. As well as his cooking skill, Jame combines food industries and Chinese culture in the video.



<https://reurl.cc/V55kN6>



**Instagram Post**  
Like: 4,686  
Reach: 49,560  
Interaction: 554  
Impression: 56,386

**Instagram Story**  
Reach total: 23,611  
Impression total: 23,611

**YouTube Video 2**  
View: 96k  
Impression: 2,458M



## Mexico

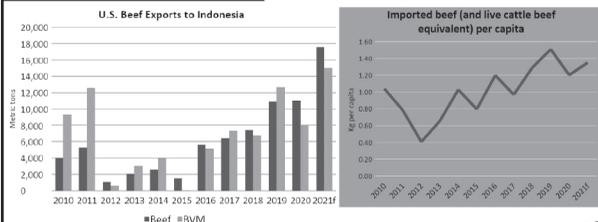
- Mobile platform for U.S. beef grilling workshops, training seminars, and consumer events



- In partnership with Nebraska Beef Council and Kansas Beef Council



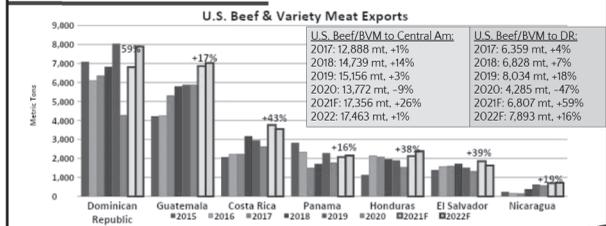
U.S. beef exports to Indonesia surged in 2021 and will set a new record, for both beef and beef variety meats, estimated to end the year up 60% and up 88% from 2020, even as other exporters are also selling more to Indonesia



Source: USDA/FAS, TDM, Euromonitor, USMEF estimates



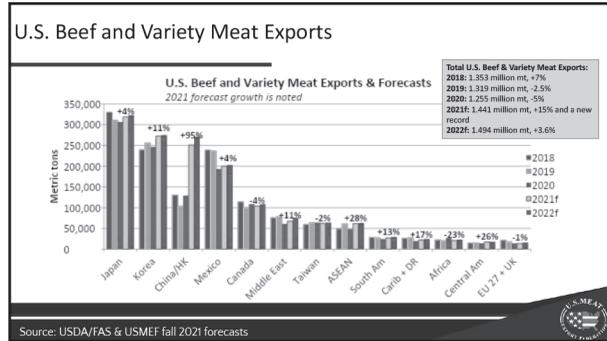
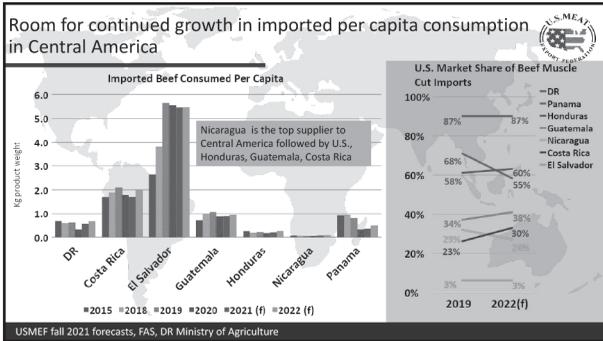
## U.S. Beef Exports to Central America/DR



Source: USDA/FAS & USMEF fall 2021 forecasts, volumes include variety meats, percent change for 2021F to 2020



# Notes



# Bill Rhea



William “Bill” Rhea III is a 5th generation agriculturalist who resides near Arlington, Nebraska on his family farm that his great-great-grandfather founded in 1872. Bill graduated from the University of Nebraska-Lincoln in 1992 with a degree in agricultural economics. While at the university Bill was part of the university’s feedlot management program, he then made his way south for an internship with Hitch 1 Feeders in Diamond Oklahoma.

Bill spent some time working with cattle in Idaho, trading and putting backgrounders together until the early 2000’s. Bill currently runs a farming operation near Arlington where he raises corn, soybeans, alfalfa and organic crops, and owns and operates a trucking operation.

In 2004 Bill joined the Nebraska Beef Council Board of Directors where he served for 8 years. During his time with the Nebraska Beef Council, he was also the council representative to the U.S. Meat Export Federation. He also spent 3 years on the USMEF Executive Council. Prior to his Presidency with Nebraska Cattlemen Bill served as the Chair and Vice Chair of the Nebraska Cattlemen Feedlot Council, was on the nominating committee and two years ago become president elect, making his way up the officer chain.

**GREATER OMAHA**  
100 YEARS OF LEGENDARY BEEF  
FROM NEBRASKA

**PROUD TO SUPPORT LEGENDARY PRODUCERS SINCE 1920**

**CSI**  
**CAPPEL SALES INC.**  
McCOOK, NE • DODGE CITY, KS  
866-649-7778 308-345-5115

**SHOVEL DOT RANCH**  
*Since 1883*

*Homer, Darla, Chad, and Tricia Buell are proud to be sponsors of the Beef Industry Summit.*

*Age-Advantaged Bull Headquarters* *Red Angus cattle in Bertrand, Neb.*

**CROSS DIAMOND CATTLE COMPANY**

*Annual Sale Dec. 13, 2021 at the ranch  
225 Red Angus bulls & 400 comm. bred hfrs  
www.crossdiamondcattle.com*

**WJ**

**Wilson Trailer**  
is The  
**LIVESTOCK BRAND!**

**Wilson TRAILER**  
Since 1890... A Good Name to Have Behind You!

Sioux City, IA - 800-798-2002  
Grand Island, NE - 800-381-1802

*T/D Doc Ryan 049*

**TD ANGUS**  
*at Rishel Ranch*  
NEXT GENERATION HERD SIRE SALE

**MARCH 18, 2022**  
AT THE RANCH / NORTH PLATTE, NE

**SELLING 300+ ANGUS BULLS**

*Sons of Musgrave Exclusive 1175, B/R MVP 5247,  
T/D Tribute 8351, Basin Deposit 6249,  
T/D Bootheel 7 8445, and Hoover No Doubt!*

**HOME OF THE #MOSTOFTHEBEST**

Trey & Dayna Wasserburger | P.O. Box 1026 | North Platte, NE 69103 | tdangus@outlook.com  
Trey: (307) 660-8650 | Bill: (308) 530-7999 **tdangus.com** facebook

**GREENCOVER**

**WE MAKE  
COVER CROPS  
SIMPLE**

**(402) 469-6784**  
**greencover.com**  
**info@greencover.com**



CATTLE ARE OUR BUSINESS  
 BUT OUR PEOPLE MAKE THE DIFFERENCE

*Darr Feedlot, Inc.*



***"Doing our part to feed the World."***

Cuming County Feeders Association, Inc.

**BRYAN**  
**(308)350-3885**



**AMI**  
**(308)350-3884**

**25 YEARS**

SPECIALIZING IN CUSTOM TRUCKING,  
 BACKGROUNDING, & CATTLE MANAGEMENT

**BHTI@HAUXTRUCKING.COM**  
**McCOOK, NEBRASKA**

**FRONTIER**

**COOPERATIVE**

**402.937.1800**

**www.frontiercooperative.com**

**CattleFax**

THE  
 DECIDING  
 FACTOR

**WWW.CATTLEFAX.COM**

**KOESTER**   
*red angus*

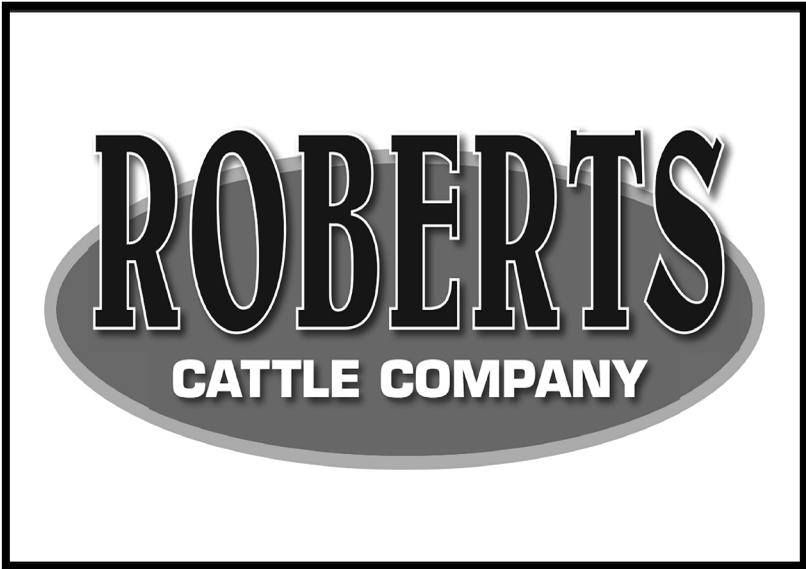
*Selling*  
*age-advantaged bulls*  
*in conjunction with*  
**Leland Red Angus**

**Friday,**  
**March 11, 2022**

**At the Ranch • Sidney, MT**  
**200 Bulls • 60 Heifers**

**Steve & Tracey Koester • KoesterRedAngus.com**  
**(701) 400-1611 cell • koester@bektel.com**





**Nebraska**  
CornBoard

f t i s

**Nebraska's Golden Triangle**  
CORN Δ ETHANOL Δ LIVESTOCK

A unique combination that provides economic strength across the state.

[nebraskacorn.gov](http://nebraskacorn.gov)

**R** *Leland*  
*Red Angus*

Defining what's important.

*adjective* **LO-CAL**  
Community-grown and focused.

**Pinnacle Bank**  
THE WAY BANKING SHOULD BE

[pinnaclebank.com](http://pinnaclebank.com)

**RED ANGUS**  
RANCH TESTED. RANCHER TRUSTED.

**RAINFORTH**  
ANIMAL HEALTH

# Thank You!

The 2021-22 Nebraska Beef Industry Scholars senior class thanks you for attending our event today. We hope you gained a better understanding of some of the issues our industry is facing and the solutions available. We appreciate your support for our program whether you are a sponsor, attendee, faculty member, friend or family member. Our time in this program has been invaluable and has truly prepared us to be proactive members of the beef industry. We look forward to our future careers and involvement within this industry and are excited about the future.

We hope you attend again next year!

**QC SUPPLY**  
Ensuring the Sustainability  
and Livelihood of the  
American Family Farmer

HI-GAIN FEEDLOT, INC.   
*"the Cattleman's Cattlefeeder"*  
*Manager: Jeff Rudolph*

COZAD, NE 308-784-500	GOTHENBURG, NE 308-221-4030	FARNAM, NE 308-569-2500
--------------------------	--------------------------------	----------------------------

**BigIron Auctions**  
**Livestock Production Sales**

- Global Reach
- Professional Listing
- Unreserved
- Targeted Marketing
- Transparency

**BigIron**  
AUCTIONS [www.bigiron.com](http://www.bigiron.com)  
800-937-3558

 **MERCK**  
Animal Health  
The Science of Healthier Animals®

  
**POWERLINE**  
GENETICS

  
NA Timmerman Inc.